

PROGRAM-RELATED FATALITIES

MICHIGAN 1998

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Michigan Department of
Consumer & Industry Services
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INTRODUCTION

The latest National Census of Fatal Occupational Injuries data shows that 6,026 fatal work injuries occurred in 1998. In Michigan there were 68 program-related fatalities reported in 1998 or about 1.1% of the national total. Program-related fatalities in Michigan are recorded and tabulated by the MIOSHA Information Division, Bureau of Safety and Regulation, Michigan Department of Consumer and Industry Services. The sources of data include the Basic Report of Injury - Form 100 and telephone reports of fatalities to the Bureau of Safety and Regulation. The conditions necessary for a fatal case to be program-related are given in the NOTE ON PROGRAM RELATED CASES (see page 8).

Program-related fatalities have been recorded since 1975 in Michigan. A high of 115 program-related fatalities occurred in 1977. There was a gradual decrease until 1983 when 52 program-related fatalities were recorded. Program-related fatalities increased from 52 in 1983 to 74 for 1986. A two-year decline to 64 cases in 1988 was recorded before an increase to 76 program-related fatalities in 1989. Between 1989 and 1993 the number of fatalities recorded dropped to 51, showing a reduction of about 54 percent from the number of cases in 1978. There were 61 program-related fatalities recorded during 1994, this decreased to 48 program-related fatalities in 1995 and decreased again to 46 program-related fatalities in 1996. This is 58.6 percent lower than the 111 recorded in 1978 and the lowest number of program-related fatalities recorded in over 20 years. The 76 program-related fatalities recorded in 1997 is 31.6% lower than the 1978 figure of 111. The number of fatalities decreased from 76 in 1997 to 68 in 1998.

The intention of this report is to contribute to a further understanding of program-related fatality profiles and hence, to the continued effort of preventing and reducing fatal cases. Information presented in this report may be of interest to employers and employees, in general, and safety professionals and consultants, in particular. Any inquiries regarding this report may be addressed to:

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PROGRAM-RELATED FATALITIES MICHIGAN 1998

This program-related fatality information for Michigan was compiled from the "Employers Basic Report of Injury", Workers Disability Form 100s and from direct telephone reports of fatalities to the Bureau of Safety and Regulation. Only fatal cases that are program-related, as defined by the Bureau of Safety and Regulation, Michigan Department of Consumer and Industry Services are compiled. Therefore the data does not include fatalities resulting from heart attacks, suicides, highway personal motor vehicle trips and aircraft accidents. The figures are shown in Tables 1 through 12.

The number of program-related fatalities declined from 115 in 1977 to 52 in 1983 gradually increased to 74 in 1986 before declining over the next two years to 64 in 1988. Program-related fatalities in Michigan during the calendar year 1989 increased to 76 before again declining over the next two years to 60 in 1991. Michigan recorded 61 program-related fatalities in 1992, then declined to 51 in 1993 before increasing to 61 in 1994. Program-related fatalities decreased over the next 2 years to an all time low of 46 program-related fatalities in 1996 before increasing to 76 in 1997. Sixty-eight program-related fatalities were recorded in 1998, a ten percent decline from 1997. A definition of program-related cases can be found on page 8 of this report. Program-related fatality trends are shown in Table 1.

This report is an overview of how the fatalities were distributed across industry groups; occupations; sources of injury or illness; events or exposures; parts of body affected; and nature of injury or illness. Frequencies of fatalities by age group, gender, month of occurrence and counties of occurrence are also provided.

Table 2 shows the trend in the distribution of program-related fatalities by industry groups from 1991 to 1998. For purposes of this report, the industry group category is based on the standard industrial classification (S.I.C.) of the **employer** regardless of the type of job being performed by the employee at the time of the accident. The largest number of fatalities occur in the Manufacturing and Construction industries. The Construction; Finance Insurance and Real Estate and Services industry divisions experienced a decrease from the previous year. Agriculture, Forestry and Fishing, Wholesale Trade and Retail Trade, showed increases in the number of fatalities from the previous year.

The industries of Oil and Gas Extraction, Manufacturing, Transportation and Public Utilities and Public Administration recorded the same number of fatalities as the previous year. The largest decrease was recorded in the Construction industry, recording 7 fewer fatalities in 1998 than in 1997. Program-related fatalities by occupation are shown in Table 3. The most affected occupation group in 1998 with 16 fatalities was Construction Trades followed by Handlers, Equipment Cleaners, Helpers and Laborers with 14 fatalities. Machine Operators and Tenders, except Precision Occupations recorded 10 fatalities, while 6 fatalities occurred in the Farming, Forestry and Fishing Occupations group in 1998.

The sources of injury or illness leading to program-related fatalities during 1997 - 1998 are listed in Table 4. Atmospheric and Environmental Conditions; (12) Floors, Walkways, Ground Surfaces; (8) Highway Vehicle Motorized; (7) and Machine, Tool and Electric Parts; (5) combined, accounted for 32 cases or about 47 percent of the sources of fatal injury or illness. The categories of Metal, Wood and Special Material Handling; and Plant and Industrial Powered Vehicles, Tractors each recorded 4 fatalities in 1998.

The number of victims that Fell to a Lower Level during 1998 was eight. Seven of the fatalities were caused by victims being Struck By Objects. Eleven of the fatalities were the result of Fires. Victims being Caught In or Compressed by Equipment resulted in eleven fatalities, and Contact with Electric Current also accounted for eleven fatalities. Table 5 shows program-related fatalities by event or exposure.

Parts of the body affected by fatal injury or illness show that Head, Body Systems, and Multiple Parts, together, accounted for 80 percent of the fatalities. Sixteen fatal injuries or illnesses specified Body Systems as the part of body affected. Multiple Parts was recorded in twenty-three of the cases. Parts of Body Affected by fatal injuries and illnesses during 1997 - 1998 are shown in Table 6.

The nature of the fatal injuries or illnesses reported were Electric Shock, Electrocution (11); Internal Injuries of the Trunk (11); Asphyxiation, Strangulation, Drowning, Suffocation (2); and Burn, Heat (5). A significant number, approximately 23 percent, of the fatalities that occurred in 1998, were the result of intracranial injuries to workers. Details of the nature of injuries and illnesses causing program-related fatalities are given in Table 7.

Employees between the ages of 26 and 45 suffered about 57 percent of the fatal injuries and illnesses. There were 7 fatalities to workers under the age of 21. The age groups of 31-35 and 36-40 both suffered 10 fatalities, which was the highest number for any of the five-year age categories. The age groups of 56-60 and 61 and over, both suffered 3 fatalities. Of the 68 victims, 61 were male employees. The distribution of program-related fatalities by age and gender are shown in Tables 8 and 9.

In 1998, December was the month with the highest number of fatalities (13). Nine program-related fatalities were reported during August. The months of January and June both recorded 8 fatalities. The month of September recorded seven fatalities. May, July and November each recorded four. February, March and October each show 3 fatalities. April recorded the lowest number of fatalities with two. Details are shown in Table 10.

Program-related fatalities by industry group and day of the week are shown in Table 11. The highest number of fatalities by day of the week shows Friday with 18, followed by Thursday showing thirteen. Monday recorded twelve cases while Wednesday recorded ten. There were six fatalities recorded on Sunday in 1998.

The distribution of fatality cases by counties shows that 27 counties reported program-related fatalities in 1998. Wayne county reported the largest (12) and Hillsdale county showed the second largest number of cases with eight. Genesee county reported 7 fatalities, Oakland county reported 4, and Macomb and Ingham counties both reported three. A complete distribution of fatality cases by county of occurrence is shown in Table 12.

Even though Michigan's 1998 total program-related fatality cases are far less than the thousands of cases reported nationwide, the consequences of these on-the-job deaths in terms of human suffering, lost workdays, decreased production, and increased compensation rates are all too significant to be overlooked.

In order for Michigan to reduce the number of on-the-job fatality cases, it requires a conscious effort on the part of employers to recognize and comply with MIOSHA standards, develop and implement safe working procedures and assure that employees observe and practice these procedures. The MIOSHA program offers on-site consultation and safety education and training opportunities to employers and employees alike to help them achieve this goal.

The program-related fatality data for Michigan are presented in the following series of Tables 1 through 12. A brief description of how the program-related fatalities occurred is also provided following the series of tables. The descriptions are listed by industry groups based on the standard industrial classification of the **employer** and are valuable insights as to how the accidents occurred. The information can be very useful to safety professionals, in particular, for use in prevention planning.

NOTE ON PROGRAM-RELATED CASES

A fatal case is recorded as program-related if it occurred under one or more of the following conditions:

1. The accident was found to have resulted from a violation of a specific MIOSHA standard rule or the general duty clause;
2. The accident was considered to be in violation of a good safety and health practice that would be the subject of a safety and health recommendation.
3. The information describing the accident is insufficient to make a clear distinction between a "program-related" and "non-program-related" incident, but the type and nature of the injury indicates that there is a high probability that the injury was the result of a violation of a specific MIOSHA standard, general duty clause, or good safety and health practice.

Any further inquiries may be addressed to:

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TABLE 1
PROGRAM-RELATED FATALITY TRENDS
MICHIGAN 1978 - 1998

YEAR	CASES	PERCENT CHANGE	CUMULATIVE PERCENT CHANGE
1978	111	-----	-----
1979	89	-19.8	- 19.8
1980	73	-18.0	- 34.2
1981	65	-11.0	- 41.4
1982	67	+ 3.1	- 39.6
1983	52	-22.4	- 53.2
1984	59	+13.5	- 46.8
1985	67	+13.6	- 39.6
1986	74	+10.4	- 33.3
1987	73	- 1.4	- 34.2
1988	64	-12.3	- 42.3
1989	76	+18.8	- 31.5
1990	72	- 5.3	- 35.1
1991	60	-16.7	- 45.9
1992	61	+1.7	- 45.0
1993	51	-16.4	- 54.1
1994	61	+19.6	- 45.0
1995	48	- 21.3	- 56.8
1996	46	- 4.2	-58.6
1997	76	+65.2	-31.6
1998	68	-10.5	-38.7

SOURCE: MIOSHA Information Division, Michigan Department of Consumer & Industry Services

TABLE 2
PROGRAM-RELATED FATALITIES
BY INDUSTRY GROUPS
MICHIGAN 1991 - 1998

INDUSTRY GROUP	YEARS							
	1991	1992	1993	1994	1995	1996	1997	1998
AGRICULTURE, FORESTRY AND FISHING	8	4	3	2	5	1	2	4
OIL AND GAS EXTRACTION	0	2	0	0	1	0	0	0
CONSTRUCTION	18	17	20	28	15	18	32	25
MANUFACTURING	17	16	19	13	16	12	22	22
TRANSPORTATION AND PUBLIC UTILITIES	5	7	8	5	4	5	5	5
WHOLESALE TRADE	3	3	1	3	2	2	1	3
RETAIL TRADE	2	3	0	3	1	1	3	4
FINANCE, INSURANCE AND REAL ESTATE	1	0	0	0	0	0	1	0
SERVICES	4	7	0	6	2	2	8	3
PUBLIC ADMINISTRATION	2	2	0	1	2	5	2	2
TOTAL	60	61	51	61	48	46	76	68

Source: MIOSHA Information Division, Michigan Department of Consumer & Industry Services.

TABLE 3
PROGRAM-RELATED FATALITIES
BY OCCUPATION
MICHIGAN 1997 - 1998

OCCUPATION	NUMBER OF CASES	
	1997	1998
Executive, Administrative and Managerial	2	3
Professional Specialty Occupations	1	1
Technicians and Related Support	1	1
Sales	0	1
Administrative Support, Including Clerical	0	1
Service, Except Protective and Household	0	1
Farming, Forestry and Fishing	5	6
Mechanics and Repairers	9	3
Construction Trades	19	16
Precision Production	6	1
Machine Operators and Tenders, Except Precision	4	10
Fabricators, Assemblers and Handworking	1	3
Production Inspectors, Testers, Samplers and Weighers	0	1
Transportation and Material Moving	7	6
Handlers, Equipment Cleaners, Helpers and Laborers	21	14
TOTAL	76	68

Source: MIOSHA Information Division, Michigan Dept. of Consumer & Industry Services.

TABLE 4

**PROGRAM-RELATED FATALITIES BY
SOURCE OF INJURY OR ILLNESS MICHIGAN 1998 - 1997**

SOURCE OF INJURY OR ILLNESS	NUMBER OF CASES	
	1998	1997
Agricultural and Garden Machinery	1	2
Agricultural Chemicals	1	--
Atmospheric & Environmental Conditions	12	1
Building Materials, Solid Elements	1	2
Carbon Dioxide	1	--
Coke and Other Coal Manufactures	1	--
Construction, Logging Machinery	3	8
Containers	--	3
Dirt, Earth, Sand, Gravel	1	2
Floors, Walkways, Ground Surfaces	8	14
Handtools - Nonpowered	--	1
Heating, Cooling & Cleaning Machinery	--	2
Highway Vehicle Motorized	7	8
Ladders	2	--
Lighting Equipment	2	--
Liquid Nitrogen	1	--
Machine, Tool & Electric Parts	5	7
Manlifts	2	--
Material Handling Machinery	--	7
Metal Materials, Nonstructural	1	--
Metal, Wood, & Special Material Machinery	4	1
Miscellaneous Machinery	--	1
Nonclassifiable	--	1
Other Structural Elements	1	2
Plant & Industrial Powered Vehicles, Tractors	4	5
Special Process Machinery	1	1
Steam, Vapors, Liquids	1	2
Tars, Sealants, Caulking, Insulating Material	--	1
Trees, Logs	3	3
Vehicle & Mobile Equipment Parts	--	2
Vehicle, Offroad	1	--
Walls	4	--
TOTAL	68	76

Source: MIOSHA Information Div., Michigan Dept. of Consumer & Industry Services.

TABLE 5
PROGRAM-RELATED FATALITIES
BY EVENT OR EXPOSURE
MICHIGAN 1998 - 1997

EVENT OR EXPOSURE	NUMBER OF CASES	
	1998	1997
CAUGHT IN, OR COMPRESSED BY EQUIPMENT	11	12
CAUGHT IN/CRUSHED IN COLLAPSING MATERIAL	6	6
CONTACT WITH ELECTRIC CURRENT	11	7
EXPLOSION	1	5
EXPOSURE TO CAUSTIC, NOXIOUS, OR ALLERGENIC SUBSTANCES	3	--
FALL TO LOWER LEVEL	8	16
FIRE	11	3
NON-HIGHWAY MOTOR VEHICLE ACCIDENTS	3	--
HIGHWAY MOTOR VEHICLE ACCIDENTS	--	2
PEDESTRIAN, NONPASSENGER STRUCK BY VEHICLE, MOBILE EQUIPMENT	7	14
STRUCK BY OBJECT	7	9
OXYGEN DEFICIENCY	--	2
TOTAL	68	76

Source: MIOSHA Information Div., Michigan Dept. of Consumer & Industry Services.

TABLE 6
PROGRAM-RELATED FATALITIES
BY PARTS OF BODY AFFECTED
MICHIGAN 1998 - 1997

PARTS OF BODY AFFECTED	NUMBER OF CASES	
	1998	1997
ABDOMEN	3	--
HEAD	16	23
NECK	2	1
CHEST	2	2
TRUNK, UNSPECIFIED	1	--
TRUNK, MULTIPLE	5	20
MULTIPLE PARTS	23	19
BODY SYSTEMS	16	11
TOTAL	68	76

Source: MIOSHA Information Division, Michigan Dept. of
Consumer & Industry Services.

TABLE 7
PROGRAM-RELATED FATALITIES
BY NATURE OF INJURY OR ILLNESS
MICHIGAN 1998 - 1997

NATURE OF INJURY OR ILLNESS	NUMBER OF CASES	
	1998	1997
ASPHYXIATION, STRANGULATION DROWNING, SUFFOCATION	2	4
BURN, HEAT	5	4
ELECTRIC SHOCK, ELECTROCUTION	11	7
FRACTURES	--	1
INTERNAL INJURIES OF THE TRUNK	11	21
INTRACRANIAL INJURIES	16	23
MULTIPLE INJURIES	20	14
OTHER POISONING & TOXIC EFFECTS	3	1
OTHER	--	1
TOTAL	68	76

Source: MIOSHA Information Division, Michigan Department of
Consumer & Industry Services.

TABLE 8
PROGRAM-RELATED FATALITIES BY AGE
MICHIGAN 1998 - 1997

AGE	NUMBER OF CASES	
	1998	1997
20 and Under	7	1
21 - 25	5	8
26 - 30	12	7
31 - 35	10	12
36 - 40	10	15
41 - 45	7	12
46 - 50	6	9
51 - 55	5	2
56 - 60	3	4
61 and Over	3	6
TOTAL	68	76

TABLE 9
PROGRAM-RELATED FATALITIES BY GENDER
MICHIGAN 1998 - 1997

GENDER	NUMBER OF CASES	
	1998	1997
MALE	61	75
FEMALE	7	1
TOTAL	68	76

Source: MIOSHA Information Division, Michigan Dept. of
Consumer & Industry Services.

TABLE 10
PROGRAM-RELATED FATALITIES
BY MONTH OF OCCURRENCE
MICHIGAN 1998 - 1997

MONTH OF OCCURRENCE	NUMBER OF CASES	
	1998	1997
JANUARY	8	4
FEBRUARY	3	6
MARCH	3	7
APRIL	2	2
MAY	4	8
JUNE	8	7
JULY	4	9
AUGUST	9	12
SEPTEMBER	7	6
OCTOBER	3	6
NOVEMBER	4	5
DECEMBER	13	4
TOTAL	68	76

Source: MIOSHA Information Div., Michigan Dept.
of Consumer & Industry Services.

TABLE 11
PROGRAM-RELATED FATALITIES
BY INDUSTRY GROUPS AND DAY OF THE WEEK
MICHIGAN 1998

INDUSTRY GROUP	<u>DAY OF THE WEEK</u>							TOTAL
	SUN	MON	TUE	WED	THUR	FRI	SAT	
AGRICULTURE, FORESTRY AND FISHING	-	1	1	-	-	2	-	4
OIL AND GAS EXTRACTION	-	-	-	-	-	-	-	0
CONSTRUCTION	3	7	3	6	4	1	1	25
MANUFACTURING	1	2	4	1	4	10	-	22
TRANSPORTATION AND PUBLIC UTILITIES	2	-	-	-	1	2	-	5
WHOLESALE TRADE	-	2	-	1	-	-	-	3
RETAIL TRADE	-	-	-	1	3	-	-	4
FINANCE, INSURANCE & REAL ESTATE	-	-	-	-	-	-	-	0
SERVICES	-	-	-	-	1	2	-	3
PUBLIC ADMINISTRATION	-	-	-	1	-	1	-	2
TOTAL	6	12	8	10	13	18	1	68

Source: MIOSHA Information Division, Michigan Dept. of Consumer & Industry Services.

TABLE 12
PROGRAM-RELATED FATALITIES BY
COUNTY OF OCCURRENCE, MICHIGAN, 1998

COUNTY	NUMBER OF CASES
ALGER	1
ALLEGAN	2
CALHOUN	2
CHARLEVOIX	1
CHEBOYGAN	1
EMMET	1
GENESEE	7
HILLSDALE	8
INGHAM	3
JACKSON	1
KALAMAZOO	2
KENT	2
LIVINGSTON	2
MACOMB	3
MASON	1
MIDLAND	1
MONROE	2
OAKLAND	4
OSCEOLA	1
OTSEGO	1
OTTAWA	2
SAGINAW	2
ST. CLAIR	2
SHIAWASSEE	2
VAN BUREN	1
WAYNE	12
WEXFORD	1
TOTALS	68

Source: MIOSHA Information Division, Michigan
Dept. of Consumer & Industry Services

**PROGRAM-RELATED FATALITY INCIDENTS
BRIEF DESCRIPTIONS OF CASES BY INDUSTRY GROUPS**

Agriculture, Forestry and Fishing:

1. Employee was operating a tractor with a manure spreader. The manure spreader was connected to the tractor and powered by a power take off shaft. Half of the power take off shield was missing exposing a coupling and bolt at a universal joint connection. The employee was found wrapped around the power take off shaft.

Violations Noted: Farm Field Equipment

2. Employee was attempting to scrape an accumulated peat moss build up from a hopper. He drove a front end loader up to the hopper, raised the bucket to the top of the hopper, then climbed up the side of the hopper to stand in the loader bucket. The brakes on the loader were not working and the loader rolled forward pressing the employee between the hopper and the bucket.

Violations Noted: General Duty
 Guards for Power Transmission
 Floor and Wall Openings, Stairways and Skylights

3. Employee was working under a tree being trimmed by another employee using a boom truck. The employee walked under a falling limb and was struck in the head.

Violations Noted: Personal Protective Equipment
 Tree Trimming and Removal

4. Employee was in the bucket of a front-end loader cleaning out a hopper when the bucket tipped forward pinning the employee between the hopper and the bucket.

Violations Noted: Powered Industrial Trucks

Construction:

1. During a sewer bore, the casing struck a rock and the 2 employees went into the steel casing where one employee died from lack of air.

Violations Noted: General Rules

Construction (continued)

2. Employee was removing and adjusting a manhole cover using a backhoe. The backhoe lurched backwards and ran over an employee.

Violations Noted: Lifting and Digging Equipment

3. Employee was moving insulation on opposite sides of a skylight. As he was walking backwards he placed his foot in the opening and fell 32 feet.

Violations Noted: Fall Protection
Concrete Construction

4. Employee was working on a drinking fountain separating a drain line from a storm/sanitary combination sewer. The employee was working out of an elevated work platform. The door carrier started to move and crushed the employee.

Violations Noted: Aerial Work Platforms
General Rules

5. Employee was covering a stairwell floor opening with a steel sheet and fell 20 feet through the opening to the surface below.

Violations Noted: None

6. Employee was working on removing and replacing an old barn roof. Employee was told to go on the roof and work on the decking. Employee fell about 22 feet.

Violations Noted: Fall Protection
General Rules

7. Employee was electrocuted while hooking up a 227 volt lighting circuit.

Violations Noted: Electrical Installations
General Rules
General Duty

8. Employee was operating a skytrack forklift alone and was crushed by the rear tire.

Violations Noted: Lifting and Digging Equipment

Construction (continued)

9. Employee was struck in the head when he stepped into the path of an eight-inch tree trunk that was being mechanically lifted.

Violations Noted: Personal Protective Equipment
 General Rules
 Statutory Rules – Failure to Report Fatality
 Lifting and Digging Equipment

10. Employee fell 20 feet through a roof opening while doing roof work.

Violations Noted: Fall Protection
 General Rules
 Statutory Rules – Failure to Report Fatality

11-14. Employees were erecting a 33-ft. high masonry wall. The wall collapsed killing 4 employees.

Violations Noted: Personal Protective Equipment
 Concrete Construction
 Fall Protection
 General Rules

15. Employee was trapped in a trench that collapsed while installing sewer lines.

Violations Noted: Excavation, Trenching and Shoring
 Personal Protective Equipment
 General Rules
 Lifting and Digging Equipment
 Handling and Storage of Materials

16. Employee was moving an extended metal ladder and made contact with overhead power lines during a painting operation.

Violations Noted: Fixed and Portable Ladders
 General Rules

17. Employee was to scrape excess mortar from activity building. While walking backwards employee fell through an opening in the floor.

Violations Noted: Fall Protection

Construction (continued)

18. Employee was installing hangars for light fixtures in a gym ceiling from a boom supported aerial platform and was caught between the structural steel and the aerial platform basket.

Violations Noted: Aerial Work Platforms
 General Rules

19. Employee was installing roof deck. While walking backward toward leading edge the employee fell 31 feet to the pavement below.

Violations Noted: Steel and Precast Erection
 Aerial Work Platforms
 General Rules

20. Employee was removing a stored soil pile with a front-end loader when the tractor tipped over crushing the employee. Operator was not wearing a seat belt and tried to jump clear of the machine.

Violations Noted: Mobile Equipment
 General Rules

21. Employee fell from a frost-covered roof 28 feet to the ground below.

Violations Noted: Fixed and Portable Ladders
 Scaffolds
 Guarding of Walking and Working Areas
 Fall Protection
 General Rules

22. Employee was putting siding on a barn. While climbing a ladder carrying a 21-ft. piece of siding, the siding contacted a power line.

Violations Noted: Fixed and Portable Ladders
 Statutory Rules – Failure to Report Fatality
 General Rules

23. Employee while removing a lifting strap from wall swung from the strap and pulled a sky-trac tractor on top of him.

Violations Noted: Personal Protective Equipment
 Mobile Equipment
 General Duty
 General Rules

Construction (continued)

24. Employee was installing vinyl siding and contacted a 240-volt service drop while on an aluminum ladder.

Violations Noted: Fixed and Portable Ladders
General Rules

25. Employee was a lineman and contacted overhead power lines - electrocuted.

Violations Noted: Power Transmission and Distribution

Manufacturing

1. Employee was climbing a ladder carrying window trim pieces and fell.

Violations Noted: Fixed and Portable Ladders
Fall Protection

2. Employee was attempting to fell a tree. When the tree dropped it kicked back and struck the employee.

Violations Noted: Logging
Statutory Rules – Failure to Report Fatality

3. Employee was refueling a lift truck using an outside pump when lightning hit in the area causing his death from electrocution.

Violations Noted: Statutory Rules – Failure to Report Fatality

4. Employee was operating the paint booth and conveyor system and placed his body in an area where the safe guard had been removed and was pinned between the moving parts basket and frame of the paint system.

Violations Noted: Conveyors

5. Employee was cleaning a machine and inadvertently activated an electronic eye causing a loading mechanism to move. The employee was crushed between the mechanism and the machine.

Violations Noted: Lockout/Tagout

6. Employee was entering an air lock system to gather a sample of corn. One door in the air lock system had a defective latch causing the door to fly open. The sudden pressure differential caused the door the employee was using to slam shut striking the employee on the head.

Violations Noted: General Duty

Manufacturing (continued)

7. Employee was cleaning built up coke material from the sides of a silo when the coke fell engulfing the employee.

Violations Noted: Personal Protective Equipment
 Confined Space
 General Duty

8. Employee was making adjustments to a paint line operation when he climbed around an interlocked barrier. The equipment cycled pinning the employee between moving and stationary equipment crushing the employee.

Violations Noted: Lockout/Tagout

9. Employee was exposed to dichlorophenol and went into cardiac arrest while showering off the chemical.

Violations Noted: Hazard Communication
 Respirator

10. Employee had a steel coil tip over crushing the employee's legs and pelvis. Employee was rushed to the hospital and died at a later date.

Violations Noted: General Provisions

11. Employee hooked an air supply hood to a nitrogen line by mistake. Death by inhalation.

Violations Noted: Hazard Communication
 Abrasive Blasting
 Respirator
 Personal Protective Equipment
 Medical and First Aid

12. Employee was a press helper and got upper shoulder and head caught in a press when the press drifted down.

Violations Noted: General Provisions
 Mechanical Power Presses
 Statutory Rules – Failure to Report Fatality
 Inspections and Investigations, Citations and Proposed Penalties

13. Employee was crushed in the die foil of a horizontal injection-molding machine.

Violations Noted: Lockout/Tagout
 Floor and Wall Openings, Stairways and Skylights

Manufacturing (continued)

14. Employee was pulling chains over logs being loaded onto a pulp wood trailer. The boom of the loader came in contact with an overhead power line at the same time the employee was pulling the chains over the load causing electrocution.

Violations Noted: Logging

15 – 21. Explosion occurred at a fireworks assembly plant killing seven employees.

Violations Noted: General Duty
 Personal Protective Equipment
 Lockout/Tagout
 Explosives and Blasting Agents
 Hazard Communication
 Storage and Handling of Liquefied Petroleum Gases
 Process Safety Management of Highly Hazardous Chemicals
 Recording and Reporting of Occupational Injuries and Illnesses

22. Employee was test driving a vehicle on a test track. The employee swerved and lost control, overturning the vehicle resulting in a skull fracture.

Violations Noted: General Provisions

Transportation and Public Utilities

1. Employee was a mechanic assisting a driver trying to reposition trailer wheels. The employee crawled under the back of the semi trailer to release the locator pins on the sliding tandem when the driver pulled ahead crushing the employee between the axle and the ICC bar on trailer.

Violations Noted: Automotive Service Operations
 Statutory Rules – Failure to Report Fatality

2. Employee while unplugging testing equipment received 14,400 volts.

Violations Noted: Power Transmission and Distribution

3. Employee was patrolling for down power lines and came in contact with a 4800 volt energized line.

Violations Noted: None

4. Employee was moving a vehicle with his head stuck out the window when he passed too close to a second truck crushing his head, neck and upper chest.

Violations Noted: None

Transportation and Public Utilities (continued)

5. Employee was working in a manlift bucket between energized lines and non-energized lines. Employee made contact with power line.

Violations Noted: Power Transmission and Distribution

Wholesale Trade

1. Employee was assisting in spotting a tractor-trailer as it was backing up to a refuse compactor. The employee was found by the driver laying face down on the ground behind the right rear wheels of the trailer.

Violations Noted: Statutory Rules – Failure to Report Fatality
General Provisions
Inspections and Investigations, Citations and Proposed Penalties

2. Employee was found pinned under a forklift truck used to unload bundles of wood from rail cars.

Violations Noted: Powered Industrial Trucks
General Duty

3. Employee was engulfed by diesel fumes, which ignited while using torch cutting equipment.

Violations Noted: Welding and Cutting

Retail Trade

1. Employee was replacing ballast in a ceiling fixture. The employee did not have the power disconnected and made contact with energized parts.

Violations Noted: Electrical Safety Related Work
Floor and Wall Openings, Stairways and Skylights

2 - 4. Employees were trapped in a fire, which originated of flammable liquid contained in a thin white plastic container.

Violations Noted: General Duty
Fire Exits
Portable Fire Extinguishers

Services

1. Employee was moving vehicles around and exited the vehicle with the motor running. The vehicle moved in reverse and struck the employee from behind running over the employee pinning him under the vehicle.

Violations Noted: None

2. Employee was attempting to raise a motor home with a hydraulic jack to replace tires. The jack slipped from the framework. The motor home came down on the employee crushing the employee's head.

Violations Noted: Automotive Service Operations
 Hand and Portable Power Tools

3. Employee was crossing a racetrack, he waited for the racecars to pass by not realizing that there were 2 additional cars on the track. Employee was struck by one of the lagging racecars.

Violations Noted: None

Public Administration

1. Employee was walking into garage to start up a truck when another truck that was backing up hit him unknowingly.

Violations Noted: Statutory Rules – Failure to Report Fatality

2. Employee was repairing a steam line and during the process the line fractured allowing steam to engulf the employee causing fatal burns.

Violations Noted: Lockout/Tagout
 General Provisions
 Personal Protective Equipment
 Recording and Reporting of Occupational Injuries and Illnesses
